

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

To:

see form PCT/ISA/220

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference see form PCT/ISA/220		FOR FURTHER ACTION See paragraph 2 below	
International application No. PCT/B2005/050264	International filing date (day/month/year) 24.01.2005	Priority date (day/month/year) 06.02.2004	
International Patent Classification (IPC) or both national classification and IPC INV. B81C1/00 B42D15/00			
Applicant KARMIC, Sàrl			

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application


2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

<p>Name and mailing address of the ISA:</p> <div style="text-align: center;">  </div> <p>European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465</p>	<p>Date of completion of this opinion</p> <p>see form PCT/ISA/210</p>	<p>Authorized Officer</p> <p>Greiner, E</p> <p>Telephone No. +49 89 2399-2786</p>
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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2005/050264

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - ☒ the international application in the language in which it was filed
 - ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ on paper
 - ☐ in electronic form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in electronic form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/B2005/050264

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-20
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-20
Industrial applicability (IA)	Yes: Claims	1-20
	No: Claims	

2. Citations and explanations

see separate sheet

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/IB2005/050264

Re Item V.

1. State of the art:

Reference is made to the following documents:

D1 = EP-A-0 375 833

D2 = US 2002/074795 A1

D3 = WO-A-91/14281

D4 = GB-A-2 126 949

2. Inventive step:

- 2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject matter of independent claims 1, 7, 13 and 19 and therefore also of the thereto dependent claims 2 to 6, 8 to 12, 14 to 18 and 20 does not involve an inventive step in the sense of Article 33(3)PCT.

2.2 Claim 1:

Document D1, which is considered to represent the most relevant state of the art, discloses (cf. abstract; column 1, line 1 to column 9, line 14 and Figures 1 and 2) a method from which the subject-matter of claim 1 differs only in that:

"... or plastic injection ... involving successive photolithography, etch-mask layer patterning and bulk substrate etching steps."

These features are described in document D2, see e.g. abstract; paragraphs 22 to 33 and Figures 1 to 6, as providing the same advantages as in the present application. The skilled person would therefore regard it as a normal design option to include these features in the method described in document D1 in order to solve the problem posed.

2.3 Claims 7, 13 and 19:

Document D1 already discloses all features of present claims 7, 13 and 19.

2.4 Dependent claims 2, 3 and 6:

The features of dependent claims 2, 3 and 6 have already been employed for the same purpose in a similar method, see

- (i) document D3, see whole document, with regard to present claims 2 and 3, and
- (ii) document D4, see page 2, line 11 to page 4, line 74 and Figures 1 to 4b.

It would therefore be obvious to the person skilled in the art, to apply these features with corresponding effect to a method according to document D1, thereby arriving at a method according to claims 2, 3 and 6.

2.5 Dependent claims 8 to 12, 14 to 18 and 20:

In claims 8 to 12, 14 to 18 and 20 a slight constructional change in the devices of claims 7, 13 and 19 is defined which comes within the scope of the customary practice followed by persons skilled in the art, especially as the advantages thus achieved can readily be foreseen. Consequently, the subject-matter of claims 8 to 12, 14 to 18 and 20 also lacks an inventive step.

3. Clarity:

3.1 Claim 1:

The embodiments of the invention described on page 5, first paragraph and page 11, lines 1 to 3 do not fall within the scope of the independent claim 1. This inconsistency between the claim 1 and the description leads to doubt concerning the matter for which protection is sought, thereby rendering the claim 1 unclear, Article 6 PCT.

3.2 Claims 4 and 5:

The term: "... including but not limited to ..." used in claims 4 and 5 is vague and unclear and leaves the reader in doubt as to the meaning of the technical features to which it refers, thereby rendering the definition of the subject-matter of said claims 4 and 5 unclear, Article 6 PCT.

- 3.3 The features in the device claims 7 to 13 and 15 to 20 relate to a method of using or manufacturing the device rather than clearly defining the device in terms of its technical features. The intended limitations are therefore not clear from these claims 7 to 13 and 15 to 20 contrary to the requirements of Article 6 PCT.